

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

Claims 1-18 (canceled).

Claim 19 (new): An address resolution device comprising:

address registration means for registering an address assigned to a user with an address table upon reception of an address registration request from the user; and

address notification means for providing notification of a callee address registered with said address table upon reception of an address notification request from a caller; wherein

said address registration means includes a function for registering an internal address of the user with said address table in conjunction with an external address of said user in response to the address registration request from the user; and

said address notification means includes a function for providing notification of the external address of the callee registered with said address table when the external address of the callee registered with said address table is different from the external address of the caller, and a function for providing notification of the internal address of the callee registered with the address table when the external address of the callee registered with the address table is the same as the external address of the caller, in response to the address notification request from the caller.

Claim 20 (new): The address resolution device according to claim 19, wherein

said address registration means includes a function for receiving a user identifier of a source, a function for acquiring a source address, a function for registering said acquired source address with said address table as an external address corresponding to said received user identifier of the source, a function for receiving a source terminal address, and a function for registering said received source terminal address with said

address table as an internal address corresponding to said received user identifier of the source; and

said address notification means includes a function for receiving a user identifier of a callee terminal, a function for acquiring the external address of the callee terminal corresponding to said received user identifier of the callee terminal by consulting said address table, a function for acquiring a source address, a function for providing notification of said acquired external address of the callee terminal when said acquired external address of the callee terminal is different from said acquired source address, and a function for acquiring and providing notification of the internal address of the callee terminal corresponding to said received user identifier of the callee terminal by consulting said address table when said acquired external address of the callee terminal is the same as said acquired source address.

Claim 21 (new): The address resolution device according to claim 19, wherein

said address registration means includes a function for receiving a user identifier of a source, a function for acquiring a source address, a function for registering said acquired source address with said address table as an external address corresponding to said received user identifier of the source, a function for receiving a source terminal address, and a function for registering said received source terminal address with said address table as an internal address corresponding to said received user identifier of the source; and

said address notification means includes a function for receiving a user identifier of a callee terminal, a function for acquiring the external address of the callee terminal corresponding to said received user identifier of the callee terminal by consulting said address table, a function for receiving the user identifier of the caller terminal, a function for acquiring the external address of the caller terminal corresponding to said received user identifier of the caller terminal by consulting said address table, a function for providing notification of said acquired external address of the callee terminal when said acquired external address of the callee terminal is different from said acquired external

address of the caller terminal, and a function for acquiring and providing notification of the internal address of the callee terminal corresponding to said received user identifier of the callee terminal by consulting said address table when said acquired external address of the callee terminal is the same as said acquired external address of the caller terminal.

Claim 22 (new): The address resolution device according to claim 20, wherein

in said address registration means, said function for acquiring a source address includes a function for acquiring a source port number, and said function for registering the source address with the address table as an external address includes a function for registering said acquired source port number; and

in said address notification means, said function for acquiring the external address of the callee terminal includes a function for acquiring the corresponding port number by consulting said address table, and said function for providing notification of the external address of the callee terminal includes a function for providing notification of said acquired corresponding port number.

Claim 23 (new): The address resolution device according to claim 20, wherein said address registration means includes a function for registering said received source terminal address with said address table as an internal address when said received source terminal address is different from said acquired source address.

Claim 24 (new): The address resolution device according to claim 19, wherein

said address registration means includes a function for registering a grouping ID with said address table when said user is grouped together with another user in response to the address registration request from the user; and

said address notification means includes a function for providing notification of said internal address of the caller registered with said address table when the callee

and the caller have the same grouping ID registered with said address table in response to the address notification request from the caller.

Claim 25 (new): The address resolution device according to claim 19, wherein said address notification means includes a function for providing notification of a registered entry in the address table in response to a request from a terminal.

Claim 26 (new): An address resolution method comprising:
an address registration step of registering an address assigned to a user with an address table upon reception of an address registration request from the user; and
an address notification step of providing notification of a callee address registered with said address table upon reception of an address notification request from a caller; wherein
said address registration step includes a step of registering an internal address of said user with said address table in conjunction with an external address of said user in response to the address registration request from the user; and
said address notification step includes a step of providing notification of the external address of the callee registered with said address table when the external address of the callee registered with said address table is different from the external address of the caller, and a step of providing notification of the internal address of the callee registered with said address table when the external address of the callee registered with the address table is the same as the external address of the caller, in response to the address notification request from the caller.

Claim 27 (new): The address resolution method according to claim 26, wherein

said address registration step includes a step of receiving a user identifier of a source, a step of acquiring a source address, a step of registering said acquired source address with said address table as an external address corresponding to said received user identifier of the source, a step of receiving a source terminal address, and a step of

registering said received source terminal address with said address table as an internal address corresponding to said received user identifier of the source; and

said address notification step includes a step of receiving a user identifier of a callee terminal, a step of acquiring the external address of the callee terminal corresponding to said received user identifier of the callee terminal by consulting said address table, a step of acquiring a source address, a step of providing notification of said acquired external address of the callee terminal when said acquired external address of the callee terminal is different from said acquired source address, and a step of acquiring and providing notification of the internal address of the callee terminal corresponding to said received user identifier of the callee terminal by consulting said address table when said acquired external address of the callee terminal is the same as said acquired source address.

Claim 28 (new): The address resolution method according to claim 26, wherein:

said address registration step includes a step of receiving a user identifier of a source, a step of acquiring a source address, a step of registering said acquired source address with said address table as an external address corresponding to said received user identifier of the source, a step of receiving a source terminal address, and a step of registering said received source terminal address with said address table as an internal address corresponding to said received user identifier of the source; and

said address notification step includes a step of receiving a user identifier of a callee terminal, a step of acquiring the external address of the callee terminal corresponding to said received user identifier of the callee terminal by consulting said address table, a step of receiving the user identifier of the caller terminal, a step of acquiring the external address of the caller terminal corresponding to said received user identifier of the caller terminal by consulting said address table, a step of providing notification of said acquired external address of the callee terminal when said acquired external address of the callee terminal is different from said acquired external address of the caller terminal, and a step of acquiring and providing notification of the internal

address of the callee terminal corresponding to said received user identifier of the callee terminal by consulting said address table when said acquired external address of the callee terminal is the same as said acquired external address of the caller terminal.

Claim 29 (new): The address resolution method according to claim 27, wherein

in said address registration step, said step of acquiring a source address includes a step of acquiring a source port number, and said step of registering the source address with the address table as an external address includes a step of registering said acquired source port number; and

in said address notification step, said step of acquiring the external address of the callee terminal includes a step of acquiring the corresponding port number by consulting said address table, and said step of providing notification of the external address of the callee terminal includes a step of providing notification of said acquired corresponding port number.

Claim 30 (new): The address resolution method according to claim 26, wherein

said address registration step includes a step of registering a grouping ID with said address table when the user is grouped together with another user in response to the address registration request from the user; and

said address notification step includes a step of providing notification of the internal address of the callee registered with said address table when the callee and the caller have the same grouping ID registered with said address table in response to the address notification request from the caller.

Claim 31 (new): A communication system comprising:

an address resolution device provided in a communication network and arranged to communicate between terminals connected to the communication network; wherein

said terminals include means for sending a user identifier of a source and a source terminal address to said address resolution device to request an address registration;

said address resolution device includes an address table for registering addresses of the terminals connected to the network, and the address resolution device includes means for receiving a user identifier of the source transmitted from the terminals upon reception of an address registration request from the terminals, means for acquiring the source terminal address, means for registering said acquired source terminal address with said address table as an external address corresponding to said received user identifier of the source, means for receiving the source terminal address transmitted from the terminals, and means for registering said received source terminal address with said address table as an internal address corresponding to said received user identifier;

said terminals include means for sending a user identifier of a callee terminal to said address resolution device to request an address notification; and

said address resolution device includes means for receiving the user identifier of the callee terminal transmitted from said terminals upon reception of the address notification request from said terminals, means for acquiring an external address of the callee terminal corresponding to said received user identifier of the callee terminal by consulting said address table, means for acquiring the source terminal address, means for providing notification of said acquired external address of the callee terminal when said acquired terminal address of the callee terminal is different from said acquired source address, and means for acquiring and providing notification of the internal address of the callee terminal corresponding to said received user identifier of the callee terminal by consulting said address table when said acquired external address of the callee terminal is the same as said acquired source address.

Claim 32 (new): A communication system comprising:

an address resolution device provided in a communication network and arranged to communicate between terminals connected to the communication network; wherein

said terminals include means for sending a user identifier of a source and a source terminal address to said address resolution device to request an address registration;

said address resolution device includes an address table for registering addresses of the terminals connected to the network, and said address resolution device includes means for receiving the user identifier of the source transmitted from said terminals upon reception of an address registration request from said terminals, means for acquiring the source terminal address, means for registering said acquired source address with said address table as an external address corresponding to said received user identifier of the source, means for receiving the source terminal address transmitted from said terminals, and means for registering said received source terminal address with said address table as an internal address corresponding to the received user identifier;

said terminal includes means for sending a user identifier of a callee terminal and the user identifier of the caller terminal to said address resolution device to request an address notification; and

said address resolution device includes means for receiving the user identifier of the callee terminal transmitted from said terminals upon reception of an address notification request from said terminals, means for acquiring an external address of the callee terminal corresponding to said received user identifier of the callee terminal by consulting said address table, means for receiving the user identifier of the caller terminal transmitted from said terminals, means for acquiring an external address of the caller terminal corresponding to the received user identifier of the caller terminal by consulting said address table, means for providing notification of said acquired external address of the callee terminal when said acquired external address of the callee terminal is different from said acquired external address of the caller terminal, and means for acquiring and providing notification of the internal address of the callee terminal corresponding to said received user identifier of the callee terminal by consulting said address table when said acquired external address of the callee terminal is the same as said acquired external address of the caller terminal.

Claim 33 (new): The communication system according to claim 31, wherein in said address resolution device, said means for acquiring a source address includes means for acquiring a source port number, and said means for registering the source address with the address table as an external address includes means for registering said acquired source port number; and

said means for acquiring the external address of the callee terminal includes means for acquiring the corresponding port number by consulting said address table, and said means for providing notification of the external address of the callee terminal includes means for providing notification of said acquired corresponding port number.

Claim 34 (new): The communication system according to claim 31, wherein said address resolution device includes means for registering a grouping ID with said address table when said terminal is grouped together with another terminal in response to the address registration request from said terminal; and

means for providing notification of the internal address of said callee terminal registered with said address table when both the callee terminal and the caller terminal have the same grouping ID registered with said address table in response to the address notification request from said terminal.

Claim 35 (new): The communication system according to claim 32, wherein in said address resolution device, said means for acquiring a source address includes means for acquiring a source port number, and said means for registering the source address with the address table as an external address includes means for registering said acquired source port number; and

said means for acquiring the external address of the callee terminal includes means for acquiring the corresponding port number by consulting said address table, and said means for providing notification of the external address of the callee terminal includes means for providing notification of said acquired corresponding port number.

Claim 36 (new): The communication system according to claim 32,
wherein said address resolution device includes means for registering a grouping ID with said address table when said terminal is grouped together with another terminal in response to the address registration request from said terminal; and
means for providing notification of the internal address of said callee terminal registered with said address table when both the callee terminal and the caller terminal have the same grouping ID registered with said address table in response to the address notification request from said terminal.

Claim 37 (new): An address resolution device comprising:
address registration means for registering a mail address assigned to a user with an address table upon reception of an address registration request from the user; and
address notification means for providing notification of a recipient mail address registered with the address table upon reception of an address notification request from a sender; wherein

said address registration means includes a function for registering an internal mail address of said user with said address table in conjunction with an E-mail address of said user in response to the address registration request from the user; and

said address notification means includes a function for providing notification of the E-mail address of the recipient registered with said address table when the domain address of the E-mail address of the recipient registered with said address table is different from the domain address of the E-mail address of the sender, and a function for providing notification of the internal address of the recipient registered with said address table when the domain address of the E-mail address of the recipient registered with said address table is the same as the domain address of the E-mail address of the sender, in response to the address notification request from the sender.

Claim 38 (new): An address resolution device comprising:

address registration means for registering a telephone number assigned to a user with an address table upon reception of an address registration request from the user; and

address notification means for providing notification of a callee telephone number registered with said address table upon reception of an address notification request from a caller; wherein

said address registration means includes a function for registering an internal telephone number of said user with said address table in conjunction with an external telephone number of said user in response to the address registration request from the user; and

said address notification means includes a function for providing notification of the external telephone number of the callee and the internal telephone number of the callee registered with said address table when the external telephone number of the callee registered with said address table is different from the external telephone number of the caller, and a function for providing notification of the internal telephone number of the callee registered with said address table when the external telephone number of the callee registered with said address table is the same as the external telephone number of the caller, in response to the address notification request from the caller.